



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,939	10/01/2004	Risto Nikander	P08398US00/DEJ	4953
881 7590 05/08/2009 STITES & HARBISON PLLC 1199 NORTH FAIRFAX STREET SUITE 900 ALEXANDRIA, VA 22314				
EXAMINER LAZORCIC, JASON L				
ART UNIT 1791		PAPER NUMBER		
MAIL DATE 05/08/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/509,939

Applicant(s)

NIKANDER, RISTO

Examiner

JASON L. LAZORCIK

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 5-7 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5-7, 9, and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 30, 2009 has been entered.

Status of the Claims

Applicants reply dated January 30, 2009 amends claims 1, 3, and 5-6, cancels claims 2, 4, adds new claim 13 and new withdrawn claim 12.

Claims 2, 4, and 8 have been cancelled by Applicant, and therefore Claims 1, 3, 5-7, and 9-13 are pending in the Application

Claims 10-11 and newly presented claim 12 have been withdrawn from consideration pursuant to the restriction election requirement dated September 13, 2007 and made FINAL in the Official Action dated January 22, 2008. The noted claims are not further treated on the merits.

Claims 1, 3, 5-7, 9, and 13 are pending for prosecution on the merits.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 3 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
4. Claim 3 recites the new limitation wherein the nozzles can be lowered down to a position "as a nozzle system". After careful review of Applicants Specification as originally filed, the Examiner has been unable to determine supporting basis for the new limitation.
5. Amended Claim 6 recites the limitation such that the support of the glass sheet "gradually changes from rotating roller support to dynamic air flow support" in lines 3-4. After careful review of Applicants Specification as originally filed, the Examiner has been unable to determine a supporting basis for the recited "gradual change" or for the recited "dynamic" nature of the air flow support.
6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. **Claims 1, 3, 5-7, 9, and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

8. The term "special bending ring" in **Claim 1, line7** is a relative term which renders the claim indefinite. The term "special" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For example, one of ordinary skill in the art would not necessarily be able to ascertain the features which distinguish the recited "special" bending ring as compared to conventional bending ring. In view of the foregoing, one of ordinary skill in the art would not necessarily be apprised of the particular metes and bounds of the instant claim.
9. **Claim 3** recites the new limitation wherein the nozzles can be lowered down to a down position "as a nozzle system". As noted above in the rejection of the instant claim under 35 U.S.C. §112, first paragraph, Applicants Specification as originally filed does not provide supporting basis for the instant limitation. Further, it is not evident to what extent the new limitation impacts the act of lowering the nozzles. In short, since the Specification does not address lowering the nozzles "as a nozzle system" and since the precise intent of this limitation is not self-evident from the claim language or when viewed in light of the Original Specification, the precise metes and bounds of the instant claim are rendered unclear and indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 3, 5-7, 9, and 13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hoetzl (US 6,505,483 B1) as evidenced by Hoetzl (US 5,320,329).

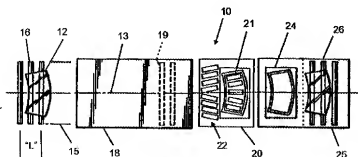
Applicant is advised that the following grounds of rejection are equivalent to that issued in the Official Actions dated January 22, 2008 and October 30, 2008. Any distinctions between the prior issued Official Actions and the following have been incorporated solely to clarify the basis for the rejection.

With particular reference to the instant figure 1, Hoetzl '483 teaches a method for transferring a heat softened glass sheet from a rotating roller bed (19) in an oven (18) to a bending ring mold (80 – see fig 8) in a press station (21). The transfer is conducted at a "a horizontal height level" or "without vertical oscillations" (Column 4, lines 33-35) from a position in the oven where the glass is supported by the rollers to a position in the region of the furnace exit wherein the roller support is terminated and the sheet is

Art Unit: 1791

thereafter gradually supported from below by dynamic air support from pressure pads directed against the bottom surface of the glass sheet (Column 13, lines 24-52). Said pressure pads are construed to read upon the arrangement of various nozzles which are located at a distance from the glass sheet and which direct air flow against the glass sheet thereby producing glass sheet supporting air jets as recited in Claim 1.

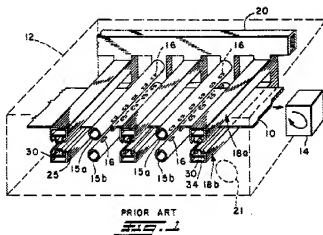
Regarding the transfer process, the '483 reference teaches that "when the glass sheet reaches the furnace exit, a glass run out section of the roll drive goes to high speed and this causes the glass to transfer to dumper pad(s) (82)" (Column 13, lines 25-28). The Examiner construes the latter excerpt as an indication that there exists at least a nominal transfer force between the last one of said rotating rollers (19) and the glass sheet during the transfer of said sheet from the roller bed to the bending ring.



In the '483 embodiment, the glass sheet is supported by and guided downstream on an air cushion formed by directing an air flow onto a bottom surface of the glass sheet. Once the glass sheet arrives at the location of a bending ring, conveyance of the glass sheet is stopped by a "conventional guide/stop drive arrangement". The suspended glass sheet is subsequently lowered into contact with the ring mold by "lowering the pressure pads" (Column 13, lines 53-67) as a nozzle system and/or by reducing the air flow.

Directing air jets onto both top and bottom surfaces of glass sheet at last one of the rotating rollers is explicitly contemplated in '483 patent:

The '483 reference teaches a preferred embodiment employing a lower pressure pad configuration wherein the pressure pads are directed only against the bottom surface of the glass sheet. The reference clearly indicates that "the pressure pad configuration illustrated in FIG. 3 is well known, but that it is to be understood that this invention is not limited to any specific pressure pad configuration" (column 7, lines 24-26). The reference continues by indicating that several of the pad configurations shown in the '329 patent may be used in the present invention. To this end, the patent explicitly contemplates providing "a pressure pad beneath the strip and an opposing pressure pad above the strip such as shown in FIG. 1 of the '329 patent" (Column 7, line 24-33). The referenced upper and lower pressure pad arrangement of the '329 patent is provided in the following excerpt image.



Substitution of the lower pressure pad arrangement depicted '483 patent for a pressure pad arrangement comprising opposing upper and lower pressure pads (e.g. bottom air flow means and upper elevation stop) similar to that of the '329 patent is explicitly contemplated in the prior art. Such an upper pressure pad arrangement is understood to provide for claimed "elevation stop". In addition, the upper pressure pads are also understood to apply a force directed upon the top surface of the glass sheet.

Specifically, this applied upper force acts upon the top surface of the glass sheet effectively pressing down upon the sheet "at a location of a last one (of) said rotating rollers". Since this upper force acts in opposition to the force applied by the lower pressure pads, the '329 upper pressure pad arrangement is understood to inherently improve the contact force between the roller bed and the glass sheet when all other process variables are held constant. It follows that the '329 pressure pad arrangement would be expected to improve "the transfer force of the last one of said rotating rollers" when compared to arrangement of the '483 patent which comprises only lower pressure pads. Restated, when all other process variables are held constant, directing an air jet

upon the upper surface of the glass sheet at a location of a last one of the rotating rollers, as provided in the '329 pressure pad arrangement, would inherently improve the transfer force of said roller compared to not applying the upper air jet.

Should Applicant contest the inherency of the improved transfer force, one of ordinary skill in the art would reasonably be expected to optimize the respective blowing pressure of the '329 upper and lower pressure pads as a routine matter of process optimization. That is, the prior art explicitly contemplates the '483 glass sheet transfer apparatus which employs upper pressure pads of the '329 patent to direct air jets onto the top surface of the glass sheet at a location of a last one of said rotating rollers. One of ordinary skill would be reasonably expected to balance or optimize the force of the upper and lower directed air jets in view of the glass sheet size, thickness, weight and other conventional process variables in order to optimize the sheet transfer process. Absent compelling evidence to the contrary, Applicants claimed improvement in "the transfer force of the last one of said rotating rollers would reasonably have been achieved through routine experimentation over the prior art disclosed process.

Response to Arguments

10. Applicant's arguments filed January 30, 2009 have been fully considered but they are not persuasive.

11. Argument #1)

Applicant alleges that the apparatus as disclosed in the Hoetzel '483 patent is silent regarding the arrangement of various nozzles at a distance from the glass sheet

whereby the directed air flow results from each nozzle producing a glass sheet supporting air jet. Applicant further alleges that the prior art is silent regarding a "nozzle system" and said references are silent regarding the "gradual change of support"

Applicants arguments on this matter are not persuasive.

As noted explicitly in the new grounds of rejection above, the Hoetzi apparatus provides for a dynamic air support for the glass sheet from a series of pressure pads or a "nozzle system" directed against the bottom surface of the glass sheet (Column 13, lines 24-52). This dynamic air support gradually assumes full support of the glass sheet as the glass sheet is transferred from the roller bed to a position over said nozzles. Said pressure pads are construed to read upon the arrangement of various nozzles which are located at a distance from the glass sheet and which direct air flow against the glass sheet thereby producing glass sheet supporting air jets as recited in Claim 1. 12. Further, although Applicant purports a difference between the prior art method and that recited in Applicants claimed invention, Applicant has failed to provide any persuasive rationale or reasoned basis to suggest that a substantive difference actually exists. It follows that Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON L. LAZORCIK whose telephone number is

(571)272-2217. The examiner can normally be reached on Monday through Friday 8:30 am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason L Lazorcik/
Examiner, Art Unit 1791